

OPE

7/10/2001 #3

Serial Number: 09/875,494 Changed a file from non-ASCII to ASCII **ENTERED** Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically: Edited the Current Application Data section with the actual current number. The number inputted by the applicant was  the prior application data; or  other \_\_\_\_\_ Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: .. Deleted extra, invalid, headings used by an applicant, specifically: Deleted:  non-ASCII "garbage" at the beginning/end of files;  secretary initials/filename at end of file;  
 page numbers throughout text;  other invalid text, such as \_\_\_\_\_ Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: Other:  
\_\_\_\_\_  
\_\_\_\_\_

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/875,494

DATE: 07/10/2001  
TIME: 11:51:32

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07102001\I875494.raw

5 <110> APPLICANT: Schmidt, Brian  
6 Chen, Tseng-hui  
8 <120> TITLE OF INVENTION: Novel Leader Peptides for Enhancing Secretion of Recombinant Protein from  
9 a Host Cell  
11 <130> FILE REFERENCE: COUL-012-01  
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/875,494  
C--> 13 <141> CURRENT FILING DATE: 2001-06-05  
13 <150> PRIOR APPLICATION NUMBER: US 60/209,517  
14 <151> PRIOR FILING DATE: 2000-06-05  
16 <160> NUMBER OF SEQ ID NOS: 25  
18 <170> SOFTWARE: PatentIn version 3.0  
20 <210> SEQ ID NO: 1  
21 <211> LENGTH: 24  
22 <212> TYPE: PRT  
C--> 23 <213> ORGANISM: Artificial  
25 <220> FEATURE:  
26 <223> OTHER INFORMATION: synthetic peptide  
28 <400> SEQUENCE: 1  
30 Met Ala Lys Lys Asn Ser Thr Leu Leu Val Ala Val Ala Ala Leu Ile  
31 1 5 10 15  
33 Phe Met Ala Gly Arg Ala Asn Ala  
34 20  
36 <210> SEQ ID NO: 2  
37 <211> LENGTH: 24  
38 <212> TYPE: PRT  
C--> 39 <213> ORGANISM: Artificial  
41 <220> FEATURE:  
42 <223> OTHER INFORMATION: synthetic peptide  
44 <400> SEQUENCE: 2  
46 Met Ala Lys Lys Asn Ser Thr Leu Leu Val Ala Val Ala Ala Leu Ile  
47 1 5 10 15  
49 Met Phe Thr Gln Pro Ala Asn Ala  
50 20  
52 <210> SEQ ID NO: 3  
53 <211> LENGTH: 24  
54 <212> TYPE: PRT  
C--> 55 <213> ORGANISM: Artificial  
57 <220> FEATURE:  
58 <223> OTHER INFORMATION: synthetic peptide  
60 <400> SEQUENCE: 3  
62 Met Gly Lys Lys Gln Thr Ala Val Ala Phe Ala Leu Ala Leu Ala  
63 1 5 10 15  
65 Leu Ser Met Thr Pro Ala Tyr Ala  
66 20  
68 <210> SEQ ID NO: 4  
69 <211> LENGTH: 24  
70 <212> TYPE: PRT

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/875,494**

**DATE: 07/10/2001**  
**TIME: 11:51:32**

**Input Set : A:\Pto.amc**  
**Output Set: N:\CREF3\07102001\I875494.raw**

C--> 71 <213> ORGANISM: Artificial  
 73 <220> FEATURE:  
 74 <223> OTHER INFORMATION: synthetic peptide  
 76 <400> SEQUENCE: 4  
 78 Met Gly Arg Lys Gln Thr Ala Val Ala Phe Ala Leu Ala Leu Ser  
 79 1                   5                   10                   15  
 81 Leu Ala Phe Thr Asn Ala Tyr Ala  
 82                   20  
 84 <210> SEQ ID NO: 5  
 85 <211> LENGTH: 106  
 86 <212> TYPE: DNA

C--> 87 <213> ORGANISM: Artificial

89 <220> FEATURE:  
 90 <223> OTHER INFORMATION: synthetic  
 92 <400> SEQUENCE: 5  
 93 acccgaaaa ttgggctaac aggaggaatt aaccatggct aaaaagaact ccaccctgct         60  
 95 cgttgcagta gctgcgctga tcttcatggc cggaagggcc aacgct                           106  
 98 <210> SEQ ID NO: 6  
 99 <211> LENGTH: 106  
 100 <212> TYPE: DNA

C--> 101 <213> ORGANISM: Artificial

103 <220> FEATURE:  
 104 <223> OTHER INFORMATION: synthetic  
 106 <400> SEQUENCE: 6  
 107 acccgaaaa ttgggctaac aggaggaatt aaccatggct aaaaagaact ccaccctgct         60  
 109 cgttgcagta gctgcgctta tcatgttcac tcagccggcg aacgct                           106  
 112 <210> SEQ ID NO: 7  
 113 <211> LENGTH: 106  
 114 <212> TYPE: DNA

C--> 115 <213> ORGANISM: Artificial

117 <220> FEATURE:  
 118 <223> OTHER INFORMATION: synthetic  
 120 <400> SEQUENCE: 7  
 121 acccgaaaa ttgggctaac aggaggaatt aaccatgggt aagaaacaga ccgctgttgc         60  
 123 attcgctctg gcgcctgg ctcttctat gacccggcg tacgct                           106  
 126 <210> SEQ ID NO: 8  
 127 <211> LENGTH: 106  
 128 <212> TYPE: DNA

C--> 129 <213> ORGANISM: Artificial

131 <220> FEATURE:  
 132 <223> OTHER INFORMATION: synthetic  
 134 <400> SEQUENCE: 8  
 135 acccgaaaa ttgggctaac aggaggaatt aaccatgggt cgtaaacaga ccgcagtagc         60  
 137 attcgcttt gcgcgttt ctctcgctt caccacgcg tacgct                           106  
 140 <210> SEQ ID NO: 9  
 141 <211> LENGTH: 74  
 142 <212> TYPE: DNA

C--> 143 <213> ORGANISM: Artificial

145 <220> FEATURE:

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/875,494**

**DATE: 07/10/2001**  
**TIME: 11:51:32**

**Input Set : A:\Pto.amc**  
**Output Set: N:\CRF3\07102001\I875494.raw**

146 <223> OTHER INFORMATION: synthetic  
148 <400> SEQUENCE: 9  
149 ccatggctaa aaagaactcc accctgctcg ttgcagtagc tgcgctgatc ttcatggccg 60  
151 gaaggggccaa cgct 74  
154 <210> SEQ ID NO: 10  
155 <211> LENGTH: 74  
156 <212> TYPE: DNA  
C--> 157 <213> ORGANISM: Artificial  
159 <220> FEATURE:  
160 <223> OTHER INFORMATION: synthetic  
162 <400> SEQUENCE: 10  
163 ccatggctaa aaagaactcc accctgctcg ttgcagtagc tgcgcttatac atgttcactc 60  
165 agccggcgaa cgct 74  
168 <210> SEQ ID NO: 11  
169 <211> LENGTH: 74  
170 <212> TYPE: DNA  
C--> 171 <213> ORGANISM: Artificial  
173 <220> FEATURE:  
174 <223> OTHER INFORMATION: synthetic  
176 <400> SEQUENCE: 11  
177 ccatgggtcg taaacagacc gctgttgcat tcgctctggc gtcctgtct cttgctttca 60  
179 ccaacgcgtt cgct 74  
182 <210> SEQ ID NO: 12  
183 <211> LENGTH: 74  
184 <212> TYPE: DNA  
C--> 185 <213> ORGANISM: Artificial  
187 <220> FEATURE:  
188 <223> OTHER INFORMATION: synthetic  
190 <400> SEQUENCE: 12  
191 ccatgggtaa gaaacagacc gctgttgcat tcgctctggc gtcctggct ctttctatga 60  
193 ccccgccgtt cgct 74  
196 <210> SEQ ID NO: 13  
197 <211> LENGTH: 74  
198 <212> TYPE: DNA  
C--> 199 <213> ORGANISM: Artificial  
201 <220> FEATURE:  
202 <223> OTHER INFORMATION: synthetic  
204 <400> SEQUENCE: 13  
205 ccatgggtaa gaaacagacc gctgttgcat tcgctctggc gtcctgtct cttgctttca 60  
207 ccccgccgtt cgct 74  
210 <210> SEQ ID NO: 14  
211 <211> LENGTH: 24  
212 <212> TYPE: PRT  
C--> 213 <213> ORGANISM: Artificial  
215 <220> FEATURE:  
216 <223> OTHER INFORMATION: synthetic peptide  
218 <400> SEQUENCE: 14  
220 Met Gly Lys Lys Gln Thr Ala Val Ala Phe Ala Leu Ala Leu Leu Ser  
221 1 5 10 15

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/875,494**

DATE: 07/10/2001  
 TIME: 11:51:32

Input Set : A:\Pto.amc  
 Output Set: N:\CRF3\07102001\I875494.raw

223 Leu Ala Phe Thr Pro Ala Tyr Ala  
 224 20  
 226 <210> SEQ ID NO: 15  
 227 <211> LENGTH: 74  
 228 <212> TYPE: DNA  
**C--> 229 <213> ORGANISM: Artificial**  
 231 <220> FEATURE:  
 232 <223> OTHER INFORMATION: synthetic  
 234 <400> SEQUENCE: 15  
 235 ccatgggtcg taaacagacc gcagtagcat tcgctttgc gctgcttct ctgcgttca 60  
 237 ccaacgcgtc cgct 74  
 240 <210> SEQ ID NO: 16  
 241 <211> LENGTH: 69  
 242 <212> TYPE: DNA  
 243 <213> ORGANISM: Escherichia coli  
 245 <400> SEQUENCE: 16  
 246 atgaaaaaga atatcgatt tcttcttgca tctatgttcg tttttctat tgctacaaac 60  
 248 gcgtacgct 69  
 251 <210> SEQ ID NO: 17  
 252 <211> LENGTH: 23  
 253 <212> TYPE: PRT  
 254 <213> ORGANISM: Escherichia coli  
 256 <400> SEQUENCE: 17  
 258 Met Lys Lys Asn Ile Ala Phe Leu Leu Ala Ser Met Phe Val Phe Ser  
 259 1 5 10 15  
 261 Ile Ala Thr Asn Ala Tyr Ala  
 262 20  
 264 <210> SEQ ID NO: 18  
 265 <211> LENGTH: 68  
 266 <212> TYPE: DNA  
 267 <213> ORGANISM: Erwinia carotovora  
 269 <400> SEQUENCE: 18  
 270 ccatgaaata cctgctgccg accgctgctg ctggctgct gctcctcgct gcccagccgg 60  
 272 cgaacgct 68  
 275 <210> SEQ ID NO: 19  
 276 <211> LENGTH: 22  
 277 <212> TYPE: PRT  
 278 <213> ORGANISM: Erwinia carotovora  
 280 <400> SEQUENCE: 19  
 282 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala  
 283 1 5 10 15  
 285 Ala Gln Pro Ala Asn Ala  
 286 20  
 288 <210> SEQ ID NO: 20  
 289 <211> LENGTH: 65  
 290 <212> TYPE: DNA  
 291 <213> ORGANISM: Escherichia coli  
 293 <400> SEQUENCE: 20  
 294 ccatgaaaaa gacagctatc gcgattgcag tggcactggc tggttcgct accgttagcgc 60

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/875,494**

**DATE: 07/10/2001**  
**TIME: 11:51:32**

**Input Set : A:\Pto.amc**  
**Output Set: N:\CRF3\07102001\I875494.raw**

296 aggcc	65
299 <210> SEQ ID NO: 21	
300 <211> LENGTH: 21	
301 <212> TYPE: PRT	
302 <213> ORGANISM: Escherichia coli	
304 <400> SEQUENCE: 21	
306 Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala	
307 1 5 10 15	
309 Thr Val Ala Gln Ala	
310 20	
312 <210> SEQ ID NO: 22	
313 <211> LENGTH: 33	
314 <212> TYPE: DNA	
<b>C--&gt; 315 &lt;213&gt; ORGANISM: Artificial</b>	
317 <220> FEATURE:	
318 <223> OTHER INFORMATION: synthetic	
320 <400> SEQUENCE: 22	
321 acccgaaaa tgggcttaaca ggaggaattt acc	33
324 <210> SEQ ID NO: 23	
325 <211> LENGTH: 24	
326 <212> TYPE: PRT	
<b>C--&gt; 327 &lt;213&gt; ORGANISM: Artificial</b>	
329 <220> FEATURE:	
330 <223> OTHER INFORMATION: synthetic peptide	
332 <400> SEQUENCE: 23	
334 Met Ala Lys Lys Asn Ser Thr Leu Leu Val Ala Val Ala Ala Leu Ile	
335 1 5 10 15	
337 Phe Met Ala Gly Arg Ala Leu Ala	
338 20	
340 <210> SEQ ID NO: 24	
341 <211> LENGTH: 72	
342 <212> TYPE: DNA	
<b>C--&gt; 343 &lt;213&gt; ORGANISM: Artificial</b>	
345 <220> FEATURE:	
346 <223> OTHER INFORMATION: synthetic	
348 <400> SEQUENCE: 24	
349 atggctaaaa agaactccac cctgctcggt gcagtagctg cgctgatctt catggccgga	60
351 agggccttgg cc	72
354 <210> SEQ ID NO: 25	
355 <211> LENGTH: 16	
356 <212> TYPE: DNA	
<b>C--&gt; 357 &lt;213&gt; ORGANISM: Artificial</b>	
359 <220> FEATURE:	
360 <223> OTHER INFORMATION: synthetic	
362 <400> SEQUENCE: 25	
363 taatgaattt aagctt	16

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/875,494

DATE: 07/10/2001  
TIME: 11:51:33

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07102001\I875494.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:23 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1  
L:39 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2  
L:55 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3  
L:71 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4  
L:87 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5  
L:101 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6  
L:115 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7  
L:129 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8  
L:143 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9  
L:157 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10  
L:171 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11  
L:185 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12  
L:199 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13  
L:213 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14  
L:229 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15  
L:315 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:22  
L:327 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23  
L:343 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24  
L:357 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/875,494

DATE: 07/10/2001  
TIME: 11:51:07

Input Set : A:\875494.txt  
Output Set: N:\CREF3\07102001\I875494.raw

Does Not Comply  
Corrected Diskette Needed

5 <110> APPLICANT: Schmidt, Brian  
6 Chen, Tseng-hui  
8 <120> TITLE OF INVENTION: Novel Leader Peptides for Enhancing Secretion of Recombinant Protein from  
9 a Host Cell  
11 <130> FILE REFERENCE: COUL-012-01  
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/875,494  
C--> 13 <141> CURRENT FILING DATE: 2001-06-05  
13 <150> PRIOR APPLICATION NUMBER: US 60/209,517  
14 <151> PRIOR FILING DATE: 2000-06-05  
16 <160> NUMBER OF SEQ ID NOS: 25  
18 <170> SOFTWARE: PatentIn version 3.0

#### ERRORED SEQUENCES

354 <210> SEQ ID NO: 25  
355 <211> LENGTH: 16  
356 <212> TYPE: DNA  
C--> 357 <213> ORGANISM: Artificial  
359 <220> FEATURE:  
360 <223> OTHER INFORMATION: synthetic  
362 <400> SEQUENCE: 25  
363 taatgattc aagctt  
E--> 366 10.  
E--> 368 1.

16

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/875,494

DATE: 07/10/2001  
TIME: 11:51:08

Input Set : A:\875494.txt  
Output Set: N:\Crf3\07102001\I875494.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:23 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1  
L:39 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2  
L:55 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3  
L:71 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4  
L:87 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5  
L:101 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6  
L:115 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7  
L:129 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8  
L:143 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9  
L:157 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10  
L:171 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11  
L:185 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12  
L:199 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13  
L:213 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14  
L:229 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15  
L:315 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:22  
L:327 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23  
L:343 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24  
L:357 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25  
L:366 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:17 SEQ:25  
L:366 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3  
M:254 Repeated in SeqNo=25  
L:368 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:2  
L:368 M:252 E: No. of Seq. differs, <211>LENGTH:Input:16 Found:18 SEQ:25